

IN THE CLAIMS

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) An optoelectronic packaging assembly, comprising:
a cover having a plurality of shield walls;
a submount having a plurality of barriers aligned with said plurality of shield walls;
a plurality of transmission line pins retained within said submount and between said plurality of barriers, wherein said plurality of transmission line pins extend from a cavity within said submount to an exterior of the optoelectronic packaging assembly; and
a base;
wherein said cover, said submount and said base mate to form a package for retaining an optoelectronic device, and wherein said plurality of transmission line pins are for conducting electrical signals for the optoelectronic device.
2. (Original) An optoelectronic packaging assembly according to claim 1, wherein said transmission line pins have rectangular cross-sections.
3. (Original) An optoelectronic packaging assembly according to claim 1, wherein said transmission line pins have circular cross-sections.

4. (Previously Presented) An optoelectronic packaging assembly according to claim 83, wherein said submount, said base, and said cover are comprised of a nonconductive plastic.
5. (Original) An optoelectronic packaging assembly according to claim 4, wherein said nonconductive plastic is a liquid crystal polymer.
6. (Previously Presented) An optoelectronic packaging assembly according to claim 4, wherein said nonconductive plastic is coated with a conductive material.
7. (Previously Presented) An optoelectronic packaging assembly according to claim 6, wherein said conductive material electrically contacts at least one outer conductive shield.
8. (Previously Presented) An optoelectronic packaging assembly according to claim 83, wherein said sheath is comprised of polytetrafluoroethylene.
9. (Previously Presented) An optoelectronic packaging assembly according to claim 83, wherein said inner conductor of each of said plurality of transmission line pins is exposed within said cavity.
10. (Previously Presented) An optoelectronic packaging assembly according to claim 83, wherein said inner conductor of each of said plurality of transmission line pins is exposed outside said cavity.

11. (Original) An optoelectronic packaging assembly according to claim 1, wherein said cover includes a cavity with walls.

12. (Previously Presented) An optoelectronic packaging assembly according to claim 11, wherein said walls are beveled.

13. (Original) An optoelectronic packaging assembly according to claim 1, wherein said cover includes fins.

14. (Previously Presented) An optoelectronic packaging assembly according to claim 1, wherein said plurality of shield walls are each coated or plated with a conductive material.

15. (Previously Presented) An optoelectronic packaging assembly according to claim 23, wherein said cover includes a relief for receiving said optical input receptacle.

16. (Previously Presented) An optoelectronic packaging assembly according to claim 1, wherein inner and outer surfaces of the optoelectronic packaging assembly are electrically conductive.

17. (Original) An optoelectronic packaging assembly according to claim 1, further including a raised mount in said cavity.

18. (Original) An optoelectronic packaging assembly according to claim 17, further including an electro-optical device on said raised mount.

19. (Previously Presented) An optoelectronic packaging assembly according to claim 23, wherein said optical input receptacle includes a half-moon shaped slot.
20. (Original) An optoelectronic packaging assembly according to claim 1, wherein said base includes a mounting flange having a mounting hole.
21. (Original) An optoelectronic packaging assembly according to claim 1, further including a thermal-electric-cooler.
22. (Original) An optoelectronic packaging assembly according to claim 21, wherein said thermal-electric-cooler fits into a cavity and on said base.
23. (Original) An optoelectronic packaging assembly according to claim 1, wherein said optoelectronic packaging assembly further includes an optical input receptacle.
24. (Original) An optoelectronic packaging assembly according to claim 23, further including an optical ferrule in said optical input receptacle.
25. (Original) An optoelectronic packaging assembly according to claim 24, further including an optical fiber inserted into said optical ferrule.

26. (Original) An optoelectronic packaging assembly according to claim 25, further including an electro-optical device in said optoelectronic packaging assembly, wherein said electro-optical device is optically coupled to said optical fiber.

27. (Original) An optoelectronic packaging assembly according to claim 26, further including an optical spacer that assists optical coupling.

28. (Original) An optoelectronic packaging assembly according to claim 27, further including clamps for clamping said optical spacer.

29. (Original) An optoelectronic packaging assembly according to claim 1, wherein said submount includes a plurality of external ground bumps disposed between said transmission line pins.

30. (Previously Presented) An optoelectronic packaging assembly, comprising:

a cover;

a submount retaining a plurality of transmission line pins, each comprised of an inner conductor, a dielectric sheath, and an outer conductive shield, that extend from a cavity within said submount to an exterior of said submount, said submount further including barriers between portions of adjacent transmission line pins within said cavity, wherein a surface of said barriers is coated with have a conductive material; and

a base;

wherein said cover, said submount, and said base mate to form a package for retaining an optoelectronic device, and wherein said plurality of transmission line pins are for conducting electrical signals for the optoelectronic device.

31. (Original) An optoelectronic packaging assembly according to claim 30, wherein said transmission line pins have rectangular cross-sections.

32. (Original) An optoelectronic packaging assembly according to claim 30, wherein said transmission line pins have circular cross-sections.

33. (Original) An optoelectronic packaging assembly according to claim 30, wherein said submount, said base, and said cover are comprised of a nonconductive plastic.

34. (Original) An optoelectronic packaging assembly according to claim 33, wherein said nonconductive plastic is a liquid crystal polymer.

35. (Previously Presented) An optoelectronic packaging assembly according to claim 33, wherein said nonconductive plastic is coated with a conductive material.

36. (Previously Presented) An optoelectronic packaging assembly according to claim 35, wherein said conductive material electrically contacts at least one outer conductive shield.

37. (Original) An optoelectronic packaging assembly according to claim 30, wherein said sheath is comprised of polytetrafluoroethylene.

38. (Previously Presented) An optoelectronic packaging assembly according to claim 30, wherein said inner conductor of each of said plurality of transmission line pins is exposed within said cavity.
39. (Previously Presented) An optoelectronic packaging assembly according to claim 30, wherein said inner conductor of each of said plurality of transmission line pins is exposed outside said cavity.
40. (Original) An optoelectronic packaging assembly according to claim 30, wherein said cover includes a plurality of interior shield walls that align with said plurality of barriers.
41. (Original) An optoelectronic packaging assembly according to claim 30, wherein said cover includes fins.
42. (Original) An optoelectronic packaging assembly according to claim 30, wherein said cover includes a relief.
43. (Original) An optoelectronic packaging assembly according to claim 30, wherein said cover includes a cavity defined by walls.
44. (Original) An optoelectronic packaging assembly according to claim 43, wherein at least one cavity wall is beveled.

45. (Original) An optoelectronic packaging assembly according to claim 30, wherein said submount includes a plurality of external ground bumps that are disposed between said transmission line pins.

46. (Original) An optoelectronic packaging assembly according to claim 30, wherein said base includes a plurality of fins covered with a conductive material.

47. (Original) An optoelectronic packaging assembly according to claim 30, further including an optical input receptacle for retaining an optical fiber.

48. (Original) An optoelectronic packaging assembly according to claim 30, wherein said base includes an insert molded thermally conductive plate.

49. (Original) An optoelectronic packaging assembly according to claim 30, further including a thermal-electric-cooler.

50. (Original) An optoelectronic packaging assembly according to claim 49, wherein said thermal-electric-cooler fits on said base.

51. (Original) An optoelectronic packaging assembly according to claim 48, further including a thermal-electric-cooler on said thermally conductive plate.

52. (Original) An optoelectronic packaging assembly according to claim 51, wherein said thermally conductive plate is formed to mate with an external structure.

53. – 54. (Canceled).

55. (Original) An optoelectronic packaging assembly according to claim 30, wherein said base includes a flange with mounting holes.

56. – 59. (Cancelled)

60. (Currently Amended) An optoelectronic packaging assembly, comprising:
a submount;
a plurality of transmission line pins extending from an interior of said submount to an exterior of said submount, a portion of at least one transmission line pin being electrically shorted to the submount;
an optoelectronic device disposed within said submount and electrically shorted to a portion of at least one transmission line pin;
a cover; and
a base, wherein said cover, said submount, and said base mate to form a package for retaining said optoelectronic device.~~An optoelectronic packaging assembly according to claim 84, and~~ wherein said submount, said base, and said cover are comprised of a nonconductive plastic.

61. (Original) An optoelectronic packaging assembly according to claim 60, wherein said nonconductive plastic is a liquid crystal polymer.

62. (Original) An optoelectronic packaging assembly according to claim 60, wherein said nonconductive plastic has a conductive material on a surface.

63. – 66. (Canceled).

67. (Currently Amended) An optoelectronic packaging assembly, comprising:
a submount;
a plurality of transmission line pins extending from an interior of said submount to an exterior of said submount, a portion of at least one transmission line pin being electrically shorted to the submount; and
an optoelectronic device disposed within said submount and electrically shorted to a portion of at least one transmission line pin;
a cover; and
a base, wherein said cover, said submount, and said base mate to form a package for retaining said optoelectronic device, and ~~An optoelectronic packaging assembly according to claim 84,~~ wherein said cover includes a plurality of interior shield walls.

68. – 69. (Cancelled)

70. (Currently Amended) An optoelectronic packaging assembly, comprising:
a submount;
a plurality of transmission line pins extending from an interior of said submount to an exterior of said submount, a portion of at least one transmission line pin being electrically shorted to the submount; and

an optoelectronic device disposed within said submount and electrically shorted to a portion of at least one transmission line pin;

a cover; and

a base, wherein said cover, said submount, and said base mate to form a package for retaining said optoelectronic device, and ~~An optoelectronic packaging assembly according to claim 84,~~ wherein said cover includes a cavity defined by walls.

71. (Original) An optoelectronic packaging assembly according to claim 70, wherein at least one cavity wall is beveled.

72. (Currently Amended) An optoelectronic packaging assembly, comprising:

a submount;

a plurality of transmission line pins extending from an interior of said submount to an exterior of said submount, a portion of at least one transmission line pin being electrically shorted to the submount; and

an optoelectronic device disposed within said submount and electrically shorted to a portion of at least one transmission line pin, ~~An optoelectronic packaging assembly according to claim 56,~~ wherein said submount includes a plurality of external ground bumps that are disposed between said transmission line pins.

73. – 74. (Cancelled)

75. (Currently Amended) An optoelectronic packaging assembly, comprising:

a submount;

a plurality of transmission line pins extending from an interior of said submount to an exterior of said submount, a portion of at least one transmission line pin being electrically shorted to the submount; and

an optoelectronic device disposed within said submount and electrically shorted to a portion of at least one transmission line pin;

a cover; and

a base, wherein said cover, said submount, and said base mate to form a package for retaining said optoelectronic device, and ~~An optoelectronic packaging assembly according to claim 84,~~ wherein said base includes an insert molded thermally conductive plate.

76. – 77. (Cancelled)

78. (Original) An optoelectronic packaging assembly according to claim 75, further including a thermal-electric-cooler on said thermally conductive plate.

79. (Original) An optoelectronic packaging assembly according to claim 78, wherein said thermally conductive plate is formed to mate with an external structure.

80. – 81. (Canceled).

82. (Currently Amended) An optoelectronic packaging assembly, comprising:

a submount;

a plurality of transmission line pins extending from an interior of said submount to an exterior of said submount, a portion of at least one transmission line pin being electrically shorted to the submount;

an optoelectronic device disposed within said submount and electrically shorted to a portion of at least one transmission line pin;

a cover; and

a base, wherein said cover, said submount, and said base mate to form a package for retaining said optoelectronic device, and ~~An optoelectronic packaging assembly according to claim 84,~~ wherein said base includes a flange with mounting holes.

83. (Previously Presented) An optoelectronic packaging assembly according to claim 1, wherein each transmission signal line pin is comprised of:

an inner conductor;

a dielectric sheath; and

an outer conductive shield.

84. – 85. (Cancelled)